



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/773,796 | 02/06/2004 | Vijayen Vecrasamy | 014089-002580US | 8456 |

20350 7590 03/31/2006

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER

PADGETT, MARIANNE L

ART UNIT PAPER NUMBER

1762

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/773,796

Applicant(s)

VEERASAMY ET AL.

Examiner

Marianne L. Padgett

Art Unit

1762

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 15 March 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 4 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____
Claim(s) objected to: _____
Claim(s) rejected: _____
Claim(s) withdrawn from consideration: _____

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☒ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____
13. ☒ Other: See Continuation Sheet.

MARIANNE PADGETT
PRIMARY EXAMINER


Continuation of 5. Applicant's reply has overcome the following rejection(s): Applicants' discussion of the phrase "straight towards the substrate" on page 12 of the 3/15/06 response in combination with cited figures 3A. & 3D, might be considered to provide file wrapper estoppel for the meaning of this phrase assuming the arrows depict the path of the energized ions/ion stream, especially considering that the figures may be considered to provide support for the provided interpretation, as well as to show that neither deflection nor angled deposition was employed. However, examiner did not find where arrows 40 or 72 allegedly describing ion movement, were described in the body of the specification, which rather weakens the arguments. Note that this interpretation thus excludes the alternative method of figure 5, which illustrates the use of deflection for deposition to occur on recording media 2. Although it must be noted that after ions have been extracted from a plasma, whether or not those ions are deflected, has no significance per se on their effect on impact on the substrate being treated, as the exclusion of the manipulation of deflection does not provide any significant or determinable or necessary affect as claimed on the results of the ions' impact, so issues of obviousness for this newly provided interpretation/file wrapper estoppel must be considered.

Continuation of 11. does NOT place the application in condition for allowance because: The terminal disclaimer submitted 3/15/2006 for PN 5,858,477 is noted, but was not approved as the signing attorney was not found to be of record, hence does not remove the obviousness double patenting rejections of sections 3 and 4 of the final rejection (mailed 11/16/05). Applicants have alleged that since the grandparent case and previous applications there to our assigned to United modular Corp., that the present application is also so owned/assigned, however on consultation the examiner has been informed that the assignment of a grandparent case, i.e. 09/648341 = PN 6544627 (or parent case) does not necessitate the same assignment in the present case, hence in order to show different ownership it is necessary he to show the assignment of the present case, which information is not presently available to the examiner. Therefore, lacking this information, the obviousness double patenting rejections over USPN 6,827,977 B2, 6,663,753 B2, 6,764,579 B2, 6,416,816 B2 & SN 10/359298 = 6878404 cannot be considered to have been overcome.

Applicant's discussion concerning meaning for "uniform" in the claims is not convincing, because the way uniform is used in the claims does not necessitate limits alleged in the response. The ions from the source only "comprises Carbon", so the ions in the stream need not even be Carbon and what about the impact energy and weight is substantially uniform or uniform is considered to remain relative, especially as a substantially uniform impact energy or uniform weight for a stream of ions can mean that the average energy/weight or energy/weight distribution at any point of impact of the ion stream on the substrate is substantially the same i.e. uniform. For example, applicants cite paragraph 63, which discusses C2 as dominating & being 95% or more of the ion beam for a specific example, but "uniform" is not used in this discussion, hence is not necessarily the meaning of uniform in the claims. As an example does not define the scope of a generic or relative term, especially when the example is not clearly associated with the relative term being employed in the claims, it cannot be said to provide defining meaning therefore.

With respect to Rabalais et al. it is noted that the teachings of extracting specific ions from the ion source, i.e. plasma, and of an optimum energy range are entirely consistent with the claimed uniform impact energy and uniform weight, which are relative. While the examiner will agree that with applicants newly so supplied clarification/file wrapper estoppel of the intended meaning of "from the plasma straight towards substrate", that does not eliminate one of three considerations, as applicant's claims require neither! Inclusion of neutral plasma species, the amount elimination of which is the reason Rabalais et al. deflects their ion stream. Baldwin et al. clearly shows a straight line of flight from the ion source 3 to the substrate 6, teaching substantially uniformly irradiating with gaseous ions, which is inclusive of claimed relative limitations, lacking clearer necessary meets and bounds. Lewin et al. also has a direct path, which perpendicularly impinges ions from the plasma onto the substrate, that have been extracted from the plasma, with a grid at a defined potential with teachings of uniform film formation, control ion energy & producing a beam of roughly uniform energy. As all these references are producing diamond or diamond like carbon, they inherently have the percentage of orbital structure of carbon-carbon bonds claimed & show various possible interpretations of applicant's relative terms, as well as the latter to explicitly teaching the "... straight..." limitation, hence applicant's arguments concerning novelty & an obviousness or not convincing.

Continuation of 13. Other: No amendments to the claims were proposed, hence there is no amendment to enter.



MARIANNE PADGETT
PRIMARY EXAMINER